The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A compound of formula I

$$R^{4}$$
 R^{2}
 R^{3}

in which

 R^3 . R^4

 \mathbb{R}^1 denotes (CH₂)_nHet, (CH₂)_nAr, or cycloalkyl having 3 to 7 C atoms,

 \mathbb{R}^2 denotes (CH₂)_nHet, (CH₂)_nAr, or cycloalkyl having 3 to 7 C atoms,

denote H, (CH₂)_nCO₂R⁵, (CH₂)_nCOHet, CHO, (CH₂)_nOR⁵. (CH₂)_nHet. (CH₂)_nN(R⁵)₂, CH=N-OA, CH₂CH=N-OA, (CH₂)_nNHOA, (CH₂)_nN(R⁵)Het,

> (CH₂)_nCH=N-Het, (CH₂)_nOCOR⁵, (CH₂)_nN(R⁵)CH₂CH₂OR⁵, (CH₂)₆N(R⁵)CH₂CH₂OCF₃, (CH₂)₆N(R⁵)C(R⁵)HCOOR⁵.

(CH2), N(R5)CH2COHet, (CH2), N(R5)CH2Het, (CH2), N(R5)CH2CH2Het, $(CH_2)_nN(R^5)CH_2CH_2N(R^5)CH_2COOR^5$, $(CH_2)_nN(R^5)CH_3CH_3N(R^5)$.

CH=CHCOOR5, CH=CHCH2NR5Het, CH=CHCH2N(R5)2, CH=CHCH2OR5 or (CH₂)₀N(R⁵)Ar,

with the proviso that in each case one of the radicals R³ or R⁴ denotes H.

 R^5 denotes H or A.

denotes straight-chain or branched alkyl or alkoxy having 1 to 10 C atoms. Α

alkenyl or alkoxyalkyl having 2 to 10 C atoms.

Het denotes a saturated, unsaturated or aromatic mono- or bicyclic heterocyclic or linear or branched organic radical containing one or more heteroatoms which

is unsubstituted or mono- or polysubstituted by A and/or Hal,

Ar denotes a phenyl radical which is unsubstituted or mono- or polysubstituted by A and/or Hal, OR5, OOCR5, COOR5, CON(R5)2, CN. NO2, NH2, NHCOR5, CF3 or SO2CH3.

denotes 0, 1, 2, 3, 4 or 5, n

Hal denotes F, Cl, Br or I, and in the case where R1 denotes

in which R denotes H or an alkyl group having 1 to 6 C atoms, and/or R^2 denotes

in which R denotes H or an alkyl group having 1 to 6 C atoms, alternatively denotes CH,

or an enantiomer, racemate, or a mixture of enantiomers thereof, or a pharmaceutically acceptable salt thereof.

- $\label{eq:continuous} 2. \qquad (Previously Presented) \qquad A compound of formula I according to $$ Claim 1, in which R^1 denotes phenyl, $2-$, $3-$ or $4-$ yanophenyl, $2-$, $3-$ or $4-$ fluorophenyl, $2-$, $3-$ or $4-$ methyl-$, -ethyl-$, -n-propyl-$ or -n-butylphenyl, $2,3-$, $2,4-$, $2,5-$, $2,6-$, $3,4-$, $3,5-$ or $3,6-$ difluoro-$, -dichloro-$ or -dicyanophenyl, $3,4,5-$ trifluorophenyl, $3,4,5-$ trimethoxy-$ or -triethoxyphenyl, thiophen-$2-$ yl or thiophen-$3-$ yl.$
- (Previously Presented) A compound of formula I according to claim 1, in which R³ denotes H.
- $\label{eq:compound} 4. \qquad \text{(Previously Presented)} \qquad \text{A compound of formula I according to claim 1, in which R^4 denotes H.}$
- 5. (Previously Presented) A compound of formula I according to claim 1, in which R² denotes phenyl, 2-, 3- or 4-cyanophenyl, 2-, 3or 4-fluorophenyl, 2-, 3- or 4-methyl-, -n-propyl- or -n-butylphenyl, 2,3-, 2,4-, 2,5- or 2,6-difluoro- or -dicyanophenyl, thiophen-2-yl or thiophen-3-yl, 2-, 3- or 4-pyridyl, 2-, 4- or 5-oxazolyl, 2-, 4- or 5-thiazolyl, quinolinyl, isoquinolinyl, 2- or 4-pyridazyl, 2-, 4- or 5-pyrimidyl, or 2- or 3-pyrazinyl.
- 6. (Previously Presented) A compound of formula I according to claim 1. in which X denotes N.
- 7. (Previously Presented) A compound of formula IA, IB, IC, ID, IE or IF

in which

Ar

 $R^1 \qquad \qquad \text{denotes } (CH_2)_n \text{Het, } (CH_2)_n \text{Ar, or cycloalkyl having 3 to 7 C atoms,}$

R² denotes (CH₂)_nHet, (CH₂)_nAr, or cycloalkyl having 3 to 7 C atoms,

A denotes straight-chain or branched alkyl or alkoxy having 1 to 10 C atoms,

alkenyl or alkoxyalkyl having 2 to 10 C atoms,

Het denotes a saturated, unsaturated or aromatic mono- or bicyclic heterocyclic or linear or branched organic radical containing one or more heteroatoms which is unsubstituted or mono- or polysubstituted by A and/or Hal,

denotes a phenyl radical which is unsubstituted or mono- or polysubstituted by A and/or Hal, OR⁵, OOCR⁵, COOR⁵, CON(R⁵)₂, CN,

NO2, NH2, NHCOR5, CF3 or SO2CH3,

R⁵ denotes H or A.

denotes 0, 1, 2, 3, 4 or 5,

Hal denotes F, Cl, Br or I, and

X denotes N, or

n

in the case where R1 denotes

in which R denotes H or an alkyl group having 1 to 6 C atoms, and/or \mathbb{R}^2 denotes

in which R denotes H or an alkyl group having 1 to 6 C atoms,

alternatively denotes CH,

or a salt thereof.

(Previously Presented) A process for preparing a compound of formula IA according to claim 7

comprising reacting a compound of formula II

or an acid-addition salt thereof, in which

R1 and X have the meanings indicated for the compound of formula IA,

with a compound of formula III

in which

A and R^2 have the meanings indicated for the compound of formula IA, and/or

a basic compound of formula IA is converted into one of its salts by treatment with an acid.

(Previously Presented) A process for preparing a compound of formula IB according to claim 7

in which R^1 , R^2 , R^3 , R^4 , X and A have the meanings indicated for the compound of formula IB,

comprising reacting a compound of formula II

or an acid-addition salt thereof, in which

R¹ and X have the meanings indicated for the compound of formula IB,

with a compound of formula IV

in which

A and R^2 have the meanings indicated for the compound of formula IB, and/or

a basic compound of formula IB is converted into one of its salts by treatment with an acid.

- (Previously Presented) A pharmaceutical composition comprising a compound of formula I according to claim 1 and a pharmaceutically acceptable carrier.
- 11. (Previously Presented) A method for the treatment of a disease which can be influenced by the binding of a compound of formula I to 5 HT receptors, comprising administering to a subject in need thereof an effective amount of a pharmaceutical composition according to claim 10.

- (Previously Presented) A method for antagonizing a 5-HT receptor, comprising administering to a subject in need thereof an effective amount of a pharmaceutical composition according to claim 10.
- (Currently Amended) A method for antagonizing a <u>5-HT_{2A} 5-HT2A</u> receptor, comprising administering to a subject in need thereof an effective amount of a pharmaceutical composition according to claim 10.

14. (Cancelled)

- 15. (Previously Presented) A process for preparing a pharmaceutical composition according to claim 10, comprising mixing together a compound of formula I and a pharmaceutically acceptable carrier.
- 16. (Previously Presented) A method for the treatment of psychoses, a neurological disorder, amyotrophic lateral sclerosis, eating disorder, bulimia, anorexia nervosa, premenstrual syndrome and/or for positively influencing obsessive compulsive obsessive compulsive disorder, comprising administering to a subject in need thereof an effective amount of a pharmaceutical composition according to claim 10.
- 17. (Previously Presented) A compound of claim 1, in which Het is one of the following groups

18. (Previously Presented) A compound of claim 7, in which Het is one of the following groups

in which

R¹ denotes (CH₂)_nHet, (CH₂)_nAr, or cycloalkyl having 3 to 7 C atoms,

R² denotes (CH₂)_nHet, (CH₂)_nAr, or cycloalkyl having 3 to 7 C atoms,

 $R^3, R^4 \qquad \qquad denote \ H, \\ (CH_2)_n CO_2 R^5, \\ (CH_2)_n COHet, \\ CHO, \\ (CH_2)_n OR^5, \\ (CH_2)_n Het, \\$

 $(CH_{2})_{n}N(R^{5})_{2},\,CH=N\text{-OA},\,CH_{2}CH=N\text{-OA},\,(CH_{2})_{n}NHOA,\,(CH_{2})_{n}N(R^{5})Het,$

(CH₂)_nN(R⁵)CH₂COHet, (CH₂)_nN(R⁵)CH₂Het, (CH₂)_nN(R⁵)CH₂CH₂Het,

(CH₂)_nN(R⁵)CH₂CH₂N(R⁵)CH₂COOR⁵, (CH₂)_nN(R⁵)CH₂CH₂N(R⁵)₂,

 $CH=CHCOOR^5, CH=CHCH_2NR^5Het, CH=CHCH_2N(R^5)_2, CH=CHCH_2OR^5 \ or \ CH=CHCOOR^5, CH=CHCH_2NR^5Het, CH=CHCH_2N(R^5)_2, CH=CHCH_2OR^5 \ or \ CH=CHCOOR^5, CH=CHCH_2NR^5Het, CH=CHCH_2N(R^5)_2, CH=CHCH_2OR^5 \ or \ CH=CHCH_2NR^5Het, CHCH_2NR^5Het, CHCH_2NR^5Het, CHCH_2NR^5Het, CHCH_2NR^5Het, CHCH_2NR^5Het, CHCH_2NR^5Het,$

 $(CH_2)_nN(R^5)Ar,$ with the proviso that in each case one of the radicals R^3 or R^4

denotes H,

R⁵ denotes H or A,

A denotes straight-chain or branched alkyl or alkoxy having 1 to 10 C atoms,

alkenyl or alkoxyalkyl having 2 to 10 C atoms,

Het denotes a saturated, unsaturated or aromatic mono- or bicyclic heterocyclic or

linear or branched organic radical containing one or more heteroatoms which

is unsubstituted or mono- or polysubstituted by A and/or Hal,

denotes a phenyl radical which is unsubstituted or mono- or polysubstituted by A and/or Hal, QR⁵, QOCR⁵, COOR⁵, CON(R⁵)₂, CN,

NO2, NH2, NHCOR5, CF3 or SO2CH3,

n denotes 0, 1, 2, 3, 4 or 5,

Hal denotes F, Cl, Br or I, and

X denotes N, or

Ar

in the case where R1 denotes

in which R denotes H or an alkyl group having 1 to 6 C atoms, and/or \mathbb{R}^2

in which R denotes H or an alkyl group having 1 to 6 C atoms, alternatively denotes CH,

or a pharmaceutically acceptable salt thereof.

20. (Previously Presented) A compound of claim 19, in which Het is one of the following groups

21. (Previously Presented) A composition

A compound of formula IA, IB, IC, ID,

IE or IF

in which

Ar

R¹ denotes (CH₂)_nHet, (CH₂)_nAr, or cycloalkyl having 3 to 7 C atoms,

R² denotes (CH₂)_nHet, (CH₂)_nAr, or cycloalkyl having 3 to 7 C atoms,

A denotes straight-chain or branched alkyl or alkoxy having 1 to 10 C atoms,

alkenyl or alkoxyalkyl having 2 to 10 C atoms,

Het denotes a saturated, unsaturated or aromatic mono- or bicyclic heterocyclic or linear or branched organic radical containing one or more heteroatoms which is unsubstituted or mono- or polysubstituted by A and/or Hal,

denotes a phenyl radical which is unsubstituted or mono- or polysubstituted by A and/or Hal, OR⁵, OOCR⁵, COOR⁵, CON(R⁵)₂, CN, NO2, NH2, NHCOR5, CF3 or SO2CH3,

R⁵ denotes H or A.

denotes 0, 1, 2, 3, 4 or 5,

Hal denotes F, Cl, Br or I, and

X denotes N, or

n

in the case where R1 denotes

in which R denotes H or an alkyl group having 1 to 6 C atoms, and/or $\mbox{\ensuremath{R}}^2$

in which R denotes H or an alkyl group having 1 to 6 C atoms,

alternatively denotes CH,

or a pharmaceutically acceptable salt thereof.

22. (Previously Presented) A compound of claim 21, in which Het is one of the following groups

23. (Previously Presented)

A compound of claim 1, in which

 R^1 R^2

denotes Het or Ar, denotes Het or Ar.

$$\begin{split} R^3, R^4 & \qquad \text{denote } H, (CH_2)_n CO_2 R^5, CH=N-OA, CH_2 CH=N-OA, (CH_2)_n NHOA, \\ & \qquad (CH_2)_n N(R^5) Het, (CH_2)_n CH=N-Het, (CH_2)_n OCOR^5, (CH_2)_n N(R^5) CH_2 CH_2 OR^5, \\ & \qquad (CH_2)_n N(R^5) CH_2 CH_2 OCF_3, (CH_2)_n N(R^5) C(R^5) HCOOR^5, \\ & \qquad (CH_2)_n N(R^5) CH_2 COHet, (CH_2)_n N(R^5) CH_2 Het, (CH_2)_n N(R^5) CH_2 CH_2 Het, \end{split}$$

 $(CH_2)_nN(R)CH_2COHet, (CH_2)_nN(R)CH_2Het, (CH_2)_nN(R)CH_2CH_2Het.$ $(CH_2)_nN(R^5)CH_2CH_2N(R^5)CH_2COOR^5, (CH_2)_nN(R^5)CH_2CH_2N(R^5)_2,$

CH=CHCOOR 5 , CH=CHCH $_2$ NR 5 Het, CH=CHCH $_2$ N(R 5) $_2$, CH=CHCH $_2$ OR 5 or (CH $_2$) $_n$ N(R 5)Ar, with the proviso that in each case one of the radicals R 3 or R 4 denotes H.

R⁵ denotes H or A.

A denotes straight-chain or branched alkyl or alkoxy having 1 to 10 C atoms,

alkenyl or alkoxyalkyl having 2 to 10 C atoms,

Het denotes a saturated, unsaturated or aromatic mono- or bicyclic heterocyclic or linear or branched organic radical containing one or more heteroatoms which is unsubstituted or mono- or polysubstituted by A and/or Hal,

Ar denotes a phenyl radical which is unsubstituted or mono- or polysubstituted by A and/or Hal, OR^5 , $OOCR^5$, $COOR^5$, $CON(R^5)_2$, CN, NO_2 , NH_2 , $NHCOR^5$, CF_3 or SO_2CH_3 ,

n denotes 0, 1, 2 or 3,

Hal denotes F, Cl, Br or I, and

X denotes N. or

in the case where R1 denotes

in which R denotes H or an alkyl group having 1 to 6 C atoms, and/or $\ensuremath{\text{R}}^2$ denotes

in which R denotes H or an alkyl group having 1 to 6 C atoms, alternatively denotes CH.

24. (Previously Presented) A compound of claim 21, in which Het is one of the following groups

25. (Cancelled)

- 26. (Cancelled)
- 27. (Previously Presented) A method for administering a pharmaceutical composition according to claim 10, comprising providing an effective amount of said pharmaceutical composition to a subject in need thereof.
- 28. (New) A method for antagonizing a 5-HT_{2A} receptor in vitro, comprising administering to said 5-HT_{2A} receptor an effective amount of a compound according to claim 1.
- 29. (New) A method for the treatment of psychoses, amyotrophic lateral sclerosis, bulimia, anorexia nervosa, premenstrual syndrome and/or for positively influencing obsessive compulsive disorder, comprising administering to a subject in need thereof an effective amount of a pharmaceutical composition according to claim 10.